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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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John A. Samuels

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425 POST ROAD
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EXAMINER

ADDY, THUAN KNOWLIN

ART UNIT

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2614

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DELIVERY MODE

09/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/902,193	Applicant(s) SAMUELS, JOHN A.	
	Examiner THJUAN K. ADDY	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on May 21, 2008 has been entered. No claims have been amended. Claims 1-25 have been cancelled. No claims have been added. Claims 26-61 are still pending in this application, with claims 26 and 40 being independent.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 26-50 and 56-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent (US Patent Application, Pub. No.: US 2003/0060195 A1), in view of Dent (US 5,535,432).

4. In regards to claims 26, 40, and 58, Dent ('195) discloses a dual mode receiver and transmitter (e.g., dual mode telephone/phone, See Fig. 1) operable to receive signals in a first mode (See Fig. 2 and GSM mode) having an associated first channel spacing, and to receive signals in a second mode (See Fig. 2 and satellite mode) having an associated second channel spacing smaller than the first channel spacing (See pg. 3, paragraph [0030] – [0031], comprising: first and second front-end RF stages for receiving a signal transmitted in the first mode at a first carrier frequency and the second mode at a second carrier frequency different from the first carrier frequency,

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respectively (See pg. 2 , paragraph [0022]; pg. 2-3, paragraph [0027]; and pg. 3, paragraph [0036]). Dent ('195), however, does not specifically disclose further circuitry, the further circuitry supplying a further signal to RF circuitry and being operable at an intermediate frequency common to each mode of operation. Dent ('432), however, does disclose further circuitry, the further circuitry supplying a further signal (e.g., reference frequency signal) to RF circuitry and being operable at an intermediate frequency common to each mode (e.g., land based cellular network and orbiting satellite system) of operation (See col. 2 lines 6-30 and col. 5 lines 15-35). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate this feature within the system, as a way of providing a mobile or portable telephone that operate either through land based cellular systems or through orbiting satellites, and more particularly, providing a dual mode satellite/cellular telephone with a frequency synthesizer that can provide both wide and narrow channel spacing.

5. In regards to claims 27 and 41, Dent ('195) discloses a receiver and transmitter, comprising two frequency down-conversion stages (See pg. 1, paragraph [0011] and pg. 4, paragraph [0046]).

6. In regards to claims 28, 32, 37, 42, 45, 49, and 59, Dent ('195) discloses a receiver and transmitter, wherein a synthesizer (See Fig. 3 and synthesizer 400) associated with one frequency down-conversion stage has a frequency resolution equal to the channel spacing associated with the received signal (See pg. 1, paragraph [0011] and pg. 4, paragraph [0046]).

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7. In regards to claims 29, 33, 38, 43, 46, and 50, Dent ('195) discloses a receiver and transmitter, wherein a synthesizer (See Fig. 2, synthesizer 34 and Fig. 3, synthesizer 400) associated with another frequency down-conversion stage has a frequency resolution wider than the channel spacing associated with the received signal (See pg. 3, paragraph [0030] – [0031] and pg. 4, paragraph [0046] – [0047]).

8. In regards to claim 30, Dent ('195) discloses all of claim 30 limitations, except a receiver, operable to convert signals received in the first mode and the second mode directly to a common intermediate frequency. Dent ('432), however, does disclose a receiver, operable to convert signals received in the first mode (e.g., land based cellular network) and the second mode (e.g., orbiting satellite system) directly to a common intermediate frequency (e.g., reference frequency signal) (See col. 2 lines 6-30 and col. 5 lines 15-35).

9. In regards to claims 31, 35, 36, 44, 48, 60, and 61, Dent ('195) discloses a receiver and transmitter, further comprising: a first antenna (See Fig. 1 and 900 MHz Antenna) for receiving a first signal in the first mode (e.g., GSM mode); a filter (See Fig. 2, IF filter/amplifier 54 and low-pass filter {47}) associated with the first antenna for selecting signals lying in a predetermined first frequency band; a first mixer (See Fig. 2 and VCO 40) for mixing the received first signal with a first local oscillator signal; a second antenna (See Fig. 1 and 1525-1660 MHz Antenna) for receiving a second signal in the second mode (e.g., satellite mode); a filter (See Fig. 2, IF filter/amplifier 55 and low-pass filter {LPF} 46) associated with the second antenna for selecting signals lying in a predetermined second frequency band; a second mixer (See Fig. 2 and VCO 41)

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for mixing the received second signal with a second local oscillator signal; a switch (See Fig. 3 and transmit/receive switch 107) for selecting between signals received in the first mode and the second mode having as an output, the output of the first mixer or the second mixer; and a third mixer (See Fig. 2 and mixer 42) for mixing the output of the switch with a third local oscillator signal to produce a signal suitable for base band processing (See pg. 3, paragraph [0030] – [0031]).

10. In regards to claims 34, 39, and 47, Dent ('195) discloses a receiver and transmitter, wherein the first local oscillator signal is produced by a combined output of the first and the second synthesizers (See pg. 3, paragraph [0030] – [0031] and pg. 4, paragraph [0046] – [0047]).

11. Dent ('195) discloses all of claim 56 limitations, except a receiver or transmitter, wherein the first channel spacing is 200 KHz. Dent ('195), however, discloses a receiver or transmitter, wherein the first channel spacing is 6MHz (See pg. 3, paragraph [0038]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use 200 KHz as the first channel spacing, as a way of providing a first channel spacing that is wider than the second channel spacing.

12. Dent ('195) discloses all of claim 57 limitations, except a receiver or transmitter, wherein the second channel spacing is 41.67 KHz or 25 KHz. Dent ('195), however, discloses a receiver or transmitter, wherein the second channel spacing is 450 KHz (See pg. 3, paragraph [0038]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use 41.67 KHz or 25 KHz as the

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second channel spacing, as a way of providing a second channel spacing that is smaller than the first channel spacing.

13. Claims 51-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent (US Patent Application, Pub. No.: US 2003/0060195 A1), in view of Dent (US 5,535,432), and further in view of Ramesh et al (US 5,943,324).

14. Dent ('195) and Dent ('432) disclose all of claim 51 limitations, except a receiver or transmitter, operable with a terrestrial cellular communication system in the first mode. Ramesh, however, discloses a receiver or transmitter (See Fig. 2, Fig. 4, Fig. 6, dish antenna 215, antenna 400, and receiver 610), operable with a terrestrial cellular communication system (See Fig. 2 and terrestrial cellular network 100) in the first mode (See col. 4 lines 21-42). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to make the receiver or transmitter operable with a terrestrial cellular communication system in the first mode, as a way of allowing the receiver or transmitter to be able to operate within a cellular communication system.

15. Dent ('195) and Dent ('432) disclose all of claim 52 limitations, except a receiver or transmitter, operable with a satellite communication system in the second mode. Ramesh, however, discloses a receiver or transmitter, operable with a satellite communication system in the second mode (See col. 2-3 lines 63-15, col. 5 lines 16-31, and col. 5-6 lines 54-12).

16. Dent ('195) and Dent ('432) disclose all of claim 53 limitations, except a receiver or transmitter, wherein the terrestrial cellular communication system is GSM. Ramesh,

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however, discloses a receiver or transmitter, wherein the terrestrial cellular communication system is GSM (See col. 5 lines 16-31 and col. 8-9 lines 52-1).

17. Dent ('195) and Dent ('432) disclose all of claim 54 limitations, except a receiver or transmitter, wherein the satellite system is IRIDIUM. Ramesh, however, discloses a receiver or transmitter, wherein the satellite system is ICO (See col. 2 lines 16-22 and col. 4 lines 22-22), therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention, to use IRIDIUM as the satellite system.

18. Dent ('195) and Dent ('432) disclose all of claim 54 limitations, except a receiver or transmitter, wherein the satellite system is ICO. Ramesh, however, discloses a receiver or transmitter, wherein the satellite system is ICO (See col. 2 lines 16-22 and col. 4 lines 22-22).

Response to Arguments

19. Applicant's arguments filed 05/21/2008 have been fully considered but they are not persuasive.

20. Applicant argues that in the Dent ('432) reference, the GSM receiver and the Satellite receiver are only using a common synthesizer 34, but their respective signal paths are separate and operate at different intermediate frequencies. Applicant states that the disclosure of Dent '432 does not show the further circuitry operable at an intermediate frequency common to each mode of operation.

21. In response to the above arguments that in the Dent ('432) reference, the GSM receiver and the Satellite receiver are only using a common synthesizer 34, but their

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respective signal paths are separate and operate at different intermediate frequencies, and that the disclosure of Dent '432 does not show the further circuitry operable at an intermediate frequency common to each mode of operation, Examiner respectfully disagrees. This particular limitation of the claims, in which Dent ('432) was used, recite "further circuitry, the further circuitry supplying a further signal to RF circuitry and being operable at an intermediate frequency common to each mode of operation." The limitation does not recite "signal paths" and/or "different intermediate frequencies".

Therefore, Dent ('432) does disclose further circuitry, the further circuitry supplying a further signal (e.g., reference frequency signal) to RF circuitry and being operable at an intermediate frequency common to each mode (e.g., land based cellular network and orbiting satellite system) of operation (See col. 2 lines 6-30 and col. 5 lines 15-35).

22. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

24. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THJUAN K. ADDY whose telephone number is (571)272-7486. The examiner can normally be reached on Mon-Fri 8:30-5:00pm.

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thjuan K. Addy/
Primary Examiner, Art Unit 2614